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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,462	07/31/2001	Coke Reed	F.11188	3570
7590 Keith D. Nowak Carter Ledyard & Milburn LLP 2 Wall Street New York, NY 10005			EXAMINER NGUYEN, PHUONGCHAU BA	
			ART UNIT 2616	PAPER NUMBER
			MAIL DATE 05/30/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/919,462

Applicant(s)

REED ET AL.

Examiner

Phuongchau Ba Nguyen

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-5, 42, 49, 50 and 55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-5, 42, 49, 50 and 55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Objections

1. Claim 43 is objected to because of the following informalities: in line 1 of claim 43, the status "(withdrawn)" should be changed to --- (original) or (cancel)---, as if applicant's intention to cancel claim 43 but mistakenly listed claim 43 as withdrawn. However, a rejection is accompanied herewith for assuming that claim 43 is still active as original without amendment. Appropriate correction is required.

Claim Rejections – 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 2–5, 49–51 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the

inventor(s), at the time the application was filed, had possession of the claimed invention. The new matter is "Internet Protocol switching system," which is not found in the original disclosure.

Claim Rejections – 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 2-4, 42-43, 49-50, 55 are rejected under 35 U.S.C. 102(b) as being anticipated by Hayter (5,577,035).

Regarding claim 2, Hayter (5,577,035) discloses an interconnect structure (fig.1) having a plurality of input ports (ports 5-7) connected by a data switch S (i.e., switch 1-fig.1) to a plurality of output ports (i.e., A-Z ports, fig.1), having an input port A (port 5) as one of the plurality of input ports (i.e., 5-7) and an

output port X as one of the plurality of output ports (ports A–Z), a message packet MA (data, fig.1) at input port A, wherein a decision (granting decision to send data to an available output port via backward arrow– fig.1, or 39–40 in fig.4) to inject message packet MA into S (switch 1–fig.1) is based at least in part on logic (the output port is available for transmission, see fig.4, col.5, lines 9–18) associated with output port X (port 27–fig.4).

Regarding claim 3, Hayter (5,577,035) discloses further an input port B and a message packet MB at input port B wherein the logic (available output port– fig.4) at output port X bases in part the decision to inject message MA into the data switch S (i.e., switch 1–fig.1) on information about message MB (col.5, lines 9–17).

Regarding claim 42, Hayter (5,577,035) discloses a method for sending a message packet MA (data) through an interconnect structure (switch 1–fig.4), said interconnect structure having at least two input ports A and B (ports 26–

fig.4), the message MA arriving at input port A, the method comprising the steps of:

monitoring the arrival of individual message packets at input port B (mechanism for handling a bandwidth request, fig.4, col.4, line 32–col.5, line 17); and

basing a decision (granting decision for transmission to an available output port) to inject all or part of message MA into the interconnect structure (switch 1), at least in part on the monitoring of individual message packets arriving at input port B (fig.4, col.4, line 47–col.5, line 23).

Regarding claim 55, Hayter further discloses wherein the monitoring of arriving message packets targeted for output port X is done by logic at X (see col.4, lines 38–40 wherein messages from different sources are targeted to output port 27–fig.4, based on the control signals from the output port server 8 available capacity, see also column 1, line 61–column 2, line 5 and column 3, lines 30–37).

Regarding claim 43, Hayter discloses a method for sending a message MA (data) through an interconnect structure (switch 1), said interconnect structure having an input port A (port 26) and a plurality of output ports (ports 27–fig.4) including an output port X, and all or part of message MA arriving at input port A, the method comprising the steps of:

monitoring logic associated with output port X (mechanism for handling a bandwidth request, fig.4, col.4, line 32–col.5, line 17); and

basing a decision (granting decision for transmission at an available output) to inject message MA (data) into the interconnect structure (switch 1), at least in part on information concerning a message MB targeted for X (the available output) and entering the interconnect structure (switch 1) at an input other than A (col.4, line 47–col.5, line 23).

Regarding claim 49, Hayter discloses wherein the message packet MA is subdivided into segments (input data into different buffers 28–30) and a decision (granting decision for transmission to an available output port) to inject a plurality of segments of MA into data switch (i.e., switch 1–fig.1) depends at

least in part on logic (the available bandwidth at an output) associated with output port X (col.4, line 28–col.5, line 18, see fig.4).

Regarding claim 50, Hayter discloses wherein the message packet MA and a message packet MB from input port B (data input to input ports 26, fig.4) are scheduled to enter (scheduled as requested upon granting the available output port) data switch (i.e., switch 1) in such a way that message packet MA and message packet MB enter output port X concurrently (fig.1, col.3, lines 19–37).

Regarding claim 4, Hayter (5,577,035) discloses messages from different sources (col.4, lines 38–40) are targeted to output port 27 (fig.4), corresponding to (wherein messages MA and MB are targeted for output port X)

Claim Rejections – 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2616

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayter in view of Manning (5,956,342).

Regarding claim 5,

Hayter discloses all the claimed limitations, except (1) wherein the timing of the injection of MA into data switch S depends at least in part on the arrival of one or more message packets at input port B.

However, in the same field of endeavor, Manning (5,956,342) discloses the bandwidth arbiter controlling switch fabric interconnection dynamically schedules momentarily unused bandwidth see col.3, lines 51-63 (corresponding to (1)). Therefore, it would have been obvious to an artisan to apply Manning's teaching to Hayter's system with the motivation being to resolve multipoint to point bandwidth contention.

Response to Arguments

8. Applicant's arguments filed 3-12-07 have been fully considered but they are not persuasive.

A/. Applicant argued that Hayter, Manning and Parks' switch is not an Internet Protocol switch, (remark page 11).

In reply, the original disclosure does not disclose "an Internet Protocol switch," thus this limitation in claims is rejected under 112 first paragraph as new matter. Hence, this argument is irrelevant.

B/. Applicant argued that the decision to schedule a packet from an input A to an output X is based on real rather than probabilistic information.

In reply, applicant is directed to column 1, line 61-column 2, line 5 and column 3, lines 30-37 wherein "if data is to be transmitted from buffer store A in the input server 2 to the output port server 8, a request transmission is made from the input port server 2 to the output port server 8. If there is available data capacity, then an acknowledgement signal is transmitted from the output port server 8 to input port server 2 indicating that data can be transferred

therebetween.” Thus, the acknowledgment for data to be transferred therebetween input and output ports is real because the acknowledgement was generated based on the available capacity at the output port server 8.

C/. Applicant argued that controlling the flow of data through a data switch is fundamentally different than the techniques described in Hayter, Manning and Park by monitoring individual message packets arriving at an input port A or B in order to decide whether an arriving packet can be injected into a data switch S.

In reply, applicant is directed to Hayter’s column 4, lines 38–46 describing the mechanism for handling a bandwidth request with a control signals which controls the quantity of data to be transmitted to the output ports from the input ports, see also figs.1–4 and column 3, line 31–column 5, line 23.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See

MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

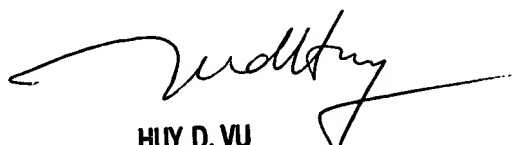
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose telephone number is 571-272-3148. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Phuongchau Ba Nguyen
Examiner
Art Unit 2616



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